

REMARKS

Claims 1, 6, 11, 14 and 31 have been amended. Claims 2, 7, 15 and 17-30 have been cancelled without prejudice or disclaimer. Thus, claims 1, 3-6, 8-14, 16 and 31-32 are pending in the application. Reconsideration is respectfully requested.

Rejections Under Section 102(b) – Kendall et al.

Claims 1, 2, 4-6, 8-14 and 16 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,022,444 to Kendall et al. ("Kendall et al.").

Claim 1 is directed to a method of sorting product portions into batches. The claimed method includes the steps of directing product portions along a first flow path, accumulating a first plurality of product portions at a first weighing station, weighing the first plurality of product portions and directing the product portions from the supply along a second flow path when a weight of the first plurality of product portions reaches a first predetermined weight. The method additionally includes the step of selectively adding product and removing product to the first plurality of product portions at the first weighing station, as necessary, to bring the weight of the first plurality of product portions within a predetermined weight range.

The Kendall et al. patent discloses an apparatus for filling containers alternately with predetermined quantities of material. The apparatus includes a system of counterweights and a pivoting diverter 80. Sacks are affixed to vertically moving frames 24, 26, one frame is in the up position while the other frame is in the down position. The

sack attached to the frame in the up position is filled by the diverter 80. When the sack being filled by the diverter 80 exceeds a predetermined target weight, the counterbalance is exceeded and the frame (and sack) go down.

There is simply no teaching or disclosure in the Kendall et al. patent of a method which includes the step of selectively adding product and removing product, as necessary, to a sack to bring the weight of the contents of the sack within a predetermined weight range. Thus, claim 1 is patentable over the Kendall et al. patent.

Claims 2, 4, and 5 depend from claim 1 and, therefore, are also patentable over the Kendall et al. patent.

Independent claims 6, 11 and 14 are directed to a method of sorting product portions into batches and feature the step of selectively adding product and removing product to a first plurality of product portions at a first weighing station, as necessary, to bring the weight of the first plurality of product portions within a predetermined weight range. As noted above, with respect to claim 1, the Kendall et al. patent does not teach or disclose such a step. Thus, claims 6, 11 and 14 are patentable over the Kendall et al. patent.

Claims 8-10 depend from claim 6 and, therefore, are also patentable over the Kendall et al. patent.

Claims 12-13 depend from claim 11 and, therefore, are also patentable over the Kendall et al. patent.

Claim 16 is dependent on claim 14 and, therefore, is also patentable over the Kendall et al. patent.

Rejections Under Section 102(b) – Moran

Claims 1, 2, 4-6, 8-14, 16-18, 20-24 and 26-32 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,616,722 to Moran ("Moran").

As explained above, Claim 1 recites a method of sorting product portions into batches and includes the step of selectively adding product and removing product to a first plurality of product portions at a first weighing station, as necessary, to bring a weight of the first plurality of product portions within a predetermined weight range.

The Moran patent does not disclose or teach a method of sorting product portions into batches including the step of selectively adding product and removing product to a first plurality of product portions at a first weighing station, as necessary, to bring a weight of the first plurality of product portions within a predetermined weight range.

The Moran patent teaches a computerized weighing system that includes ten weighing buckets 17. Each weighing bucket 17 consists of two side by side compartments 20, 21. A sliding door 35 shuttles between the bottoms of the two compartments. Associated with each weighing bucket 17 is a holding bucket 15. Each holding bucket 15 includes a pair of separately openable clamshells 50, 51. Depending on which of the two clamshells 50, 51 is opened, the product in the holding bucket empties into either the compartment 20 (if clamshell 50 is opened) or the compartment 21 (if clamshell 51 is opened).

As product 13 begins being dropped from the holding bucket 15 into, for example, compartment 20, the sliding door 35 simultaneously moves from a position under the compartment 21 to a position under compartment 20 thereby allowing the product 13 in the compartment 21 to empty while new product enters the compartment 20 from the holding bucket 15. This simultaneous loading and emptying of a bucket 17 is asserted by Moran to increase the cycle rate of the scale.

Each weighing bucket 17 includes an associated load cell 18 that weighs the product 13 in the bucket 17. Once all ten buckets 17 have been filled (that is, one compartment of each bucket is filled), the weight of product in each of the ten buckets is known because of the associated load cells 18. Based on the product weights in each weighing bucket 17, a microprocessor then determines all possible combinations of buckets and determines the combination of weighing buckets which will be opened to drop their products into the funnel 14 so that the final package weight will meet a desired weight while minimizing overage. Specifically, Moran states:

“After all of the weighing buckets 17 have received product 13, the microprocessor adds in all possible combinations the weights represented by the load cell signals and selects the best combination of weights to meet the statistical package weight while minimizing overfilling. The microprocessor then produces a signal to cause emptying of those particular weighing buckets 17 which make up the selected combination. In a given cycle, for example, the microprocessor may cause five of the weighing buckets to empty into the funnel 14 while the remaining five buckets remain filled until selected and emptied during subsequent cycles.”

Moran at col. 3, lines 11-22.

In the Moran patent, since the microprocessor selects the best combination of buckets to empty to fill a package and since all the selected weighing buckets for a given package empty into a single funnel, there is absolutely no necessity of adding or removing product from a given weighing bucket. Indeed, any such additions or deletions to a given weighing bucket would be counterproductive to the microprocessor's search of all combinations of weighing buckets 17 to find the best combination of weighing buckets to empty to fill a package. The weight of product in any given weighing bucket 17 is not of importance, thus, there is no need to modify the weigh in any given weighing bucket 17. It is only the additive sum of the weight of product in the weighing buckets 17 selected by the microprocessor for emptying that is of any importance.

In summary, the Moran patent does not disclose or teach a method of sorting product portions into batches including the step of selectively adding product and removing product to a first plurality of product portions at a first weighing station, as necessary, to bring a weight of the first plurality of product portions within a predetermined weight range because there is simply no need to do so given the microprocessor selection of a combination of weighing buckets 17 to fill a package that is taught by Moran.

Thus, claim 1 is patentable over the Moran patent.

Claims 2, 4, and 5 depend from claim 1 and, therefore, are also patentable over the Moran patent.

Independent claims 6, 11 and 14 are directed to a method of sorting product portions into batches and feature the step of selectively adding product and removing product to a first plurality of product portions at a first weighing station, as necessary, to bring the weight of the first plurality of product portions within a predetermined weight range. As noted above, with respect to claim 1, the Kendall et al. patent does not teach or disclose such a step. Thus, claims 6, 11 and 14 are patentable over the Kendall et al. patent.

Claims 8-10 depend from claim 6 and, therefore, are also patentable over the Kendall et al. patent.

Claims 12-13 depend from claim 11 and, therefore, are also patentable over the Kendall et al. patent.

Claim 16 is dependent on claim 14 and, therefore, is also patentable over the Kendall et al. patent.

Claims 16-18, 20-24 and 26-30 have been cancelled without prejudice or disclaimer and, therefore, the rejection of these claims is moot.

Claim 31 is directed to an apparatus for sorting a supply of product portions into batches and features a first diverter having an entrance that accepts the supply of product portions and which includes first and second exits. Claim 31 further features a second diverter having an entrance that accepts product portions from the first exit of the first diverter and which includes first and second exits and a third diverter having an entrance that accepts product portions from the second exit of the first diverter and which includes first and second exits.

Claim 31 additionally features a first weigher that accepts product portions from said first exit of the second diverter, the first weigher including an exit having a door; a second weigher that accepts product portions from said second exit of the second diverter, the second weigher including an exit having a door; a third weigher that accepts product portions from said first exit of the third diverter, the third weigher including an exit having a door; and a fourth weigher that accepts product portions from said second exit of the third diverter, said fourth weigher including an exit having a door.

The Moran patent does not teach or disclose the three level sorting apparatus recited in claim 1 having:

Level 1) a first diverter that includes first and second exits;

Level 2) second and third diverters respectively receiving product portions from the first and second exits of the first diverter; and

Level 3) first, second, third and fourth weighers respectively receiving product portions from the second diverter – first exit, the second diverter – second exit, the third diverter – first exit, and the third diverter – second exit.

To the extent that the Examiner considers the ten weighing buckets 17 disclosed in the Moran patent as corresponding the first, second, third and fourth weighers and the ten clamshell holding buckets 15 which fill the weighing bucket compartments 20, 21, as corresponding to the second and third diverters, there is absolutely no teaching or suggestion in the Moran patent of a first level, first diverter. Further, the funnel 14 is accepts products from all weighing buckets 17 and there is no indication that the funnel provides any weighing function or has any exit door.

Thus, claim 31 is patentable over the Moran patent.

Claim 32 is dependent on claim 31 and, therefore, is also patentable over the Moran patent.

Rejections Under Section 103(a) – Moran & Nielsen et al.

Claims 3, 7 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Moran in view of U.S. Patent No. 5,813,195 to Nielsen et al. ("Nielsen et al.").

While claims 3, 7 and 15 have been cancelled thereby rendering this rejection moot, to the extent that the Examiner seeks to apply this rejection to amended independent claims 1, 6, and/or 14, Applicant would respectfully point out that any such rejection would be improper. As discussed above in detail, the Moran patent discloses a computerized weighing system that includes ten weighing buckets 17 and holding buckets 15 and a microprocessor that determines what combination of weighing buckets 17 should be emptied into the funnel 14 to fill a package to a minimum or statistical weight while exceeding the weight by as little as possible.

Because the Moran microprocessor considers all possible combinations of weights in each of the ten weighing buckets 17 there is simply no motivation or suggestion to modify the Moran system by any type of adding or reducing of product in any of the weighing buckets 17. Modifying the Moran computerized weighing system to provide for adding or removing product in any of the weighing buckets would result in no benefit because, as noted above, the weight of product in any given weighing bucket 17

is of no importance, it is only the additive sum of the weight of the product in the weighing buckets 17 that the microprocessor selects for emptying that is of importance.

To suggest a modification of the Moran patent as suggested by the Examiner to include adding or removing product from a weighing bucket is exactly the type of hindsight reconstruction that the Federal Circuit Court of Appeals has repeatedly found to be impermissible. As the Federal Circuit Court of Appeals has repeatedly warned, motivation to combine references cannot come from hindsight reconstruction based on the claimed invention:

"Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined only if there is some suggestion or incentive to do so.' Although couched in terms of combining teaching found in the prior art, the same inquiry must be carried out in the context of a purported obvious 'modification' of the prior art. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. ... Here the Examiner relied upon hindsight to arrive at the determination of obviousness. It is impermissible to use the claimed invention as an instructions manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that '[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.'"

In re Fitch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992).

Here, Moran and Nielsen et al., taken alone or together, provide no suggestion of the desirability of modifying the computerized weighing system of Moran to provide for adding or removing product from any of the weighing buckets 17.

Thus, independent claims 1, 6 and 14 are patentable over any combination of the Moran and Nielsen et al. patents.

Rejections Under Section 103(a) – Moran & Howard

Claims 19 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Moran in view of U.S. Patent No. 5,736,683 to Howard.

Claims 19 and 25 have been cancelled without prejudice or disclaimer and, therefore, the rejection of these claims is moot.

It is respectfully submitted that all pending claims are in condition for allowance and prompt notice to that effect is respectfully requested.

Respectfully submitted,

Dated: _____

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